

Amendments to the claims:

This listing of claims will replace all prior versions and listings of Claims in the Application:

Listing of Claims:

- 3 1. (Currently Amended) A medical laser delivery apparatus for delivering a series of laser
4 pulses having a wavelength, the medical laser delivery apparatus including non-ablative
5 laser pulses for directing to an area of tissue to be treated and generating a region of
6 coagulation to a controllable coagulation depth under a surface of the area of tissue, the
7 apparatus comprising a laser source for generating the series of laser pulses including the
8 non-ablative laser pulses to be delivered to the area of tissue to be treated in order to raise
9 a temperature at the surface of the area of tissue to be treated to a temperature sufficient
10 to generate coagulation at the coagulation depth when the laser source is in a coagulation
11 mode, wherein the laser source comprises two or more lasers that combines the series of
12 laser pulses from the two or more lasers ~~when the laser source is in an ablation mode.~~

- 1 2. (Previously Presented) The medical laser delivery apparatus as claimed in claim 1
2 wherein the series of laser pulses are focussed to the target tissue through an articulated
3 arm feature.

- 1 3. (Previously Presented) The medical laser delivery apparatus as claimed in claim 2
2 wherein the articulated arm feature comprises one or more refocussing optics for
3 refocussing the laser pulses as they travel through the articulated arm feature.

- 1 4. (Previously Presented) The medical laser delivery apparatus as claimed in claim 3
2 wherein the laser delivery system further comprises a scanning handpiece at an end of the
3 articulated arm feature for guiding the series of one or more non-ablative laser pulses to
4 the area of tissue being treated.

- 1 5. (Original) The medical delivery apparatus as claimed in claim 4 wherein the
2 refocussing optics are simple convex lenses.

- 1 6. (Original) The medical laser delivery apparatus as claimed in claim 1 further comprising
2 a graphical user interface through which a user selects the coagulation depth and/or
3 fluence.

- 1 7. (Original) The medical laser delivery apparatus as claimed in claim 6 wherein the laser
2 source also has an ablation mode wherein it generates laser pulses of a strength and
3 duration to ablate tissue at the area of tissue being treated to an ablation depth and the
4 user selects the ablation depth through the graphical user interface.

- 1 8. (Previously Presented) The medical laser delivery apparatus as claimed in claim 1
2 wherein the apparatus is configured to generate laser pulses with short penetration depths.

- 1 9. (Previously Presented) The medical laser delivery apparatus as claimed in claim 8
2 wherein the two or more lasers are erbium lasers.

- 1 10. (Previously Presented) The medical laser delivery apparatus as claimed in claim 9
2 wherein the erbium lasers are Er:YAG lasers.

- 1 11. (Currently Amended) A medical laser comprising:
 - 2 a. a laser source having two or more pulsed lasers for generating pulses of laser light
3 having a wavelength, wherein a series of the pulses of laser light are combined
4 from the laser source for generating a single laser output having a predetermined
5 absorption, wherein the predetermined absorption forms a predetermined
6 coagulation depth; and
 - 7 b. a laser control system coupled to the laser source for controlling the laser source
8 to deliver the laser output to a target area.

- 1 12. (Original) The medical laser as claimed in claim 11 further comprising a graphical user
2 interface through which a user selects a depth of the coagulation region formed by the
3 coagulative laser pulses.

- 1 13. (Original) The medical laser as claimed in claim 12 further comprising a laser delivery
- 2 system coupled to the laser source for delivering the laser beam from the laser source to
- 3 an area of tissue to be treated.

- 1 14. (Original) The medical laser as claimed in claim 13 wherein the laser delivery system
- 2 comprises an articulated arm and one or more refocussing optics for refocussing the laser
- 3 beam as it travels through the arm.

- 1 Claims 15-16 (Cancelled).

- 1 17. (Currently Amended) A medical laser delivery apparatus for treating an area of tissue
- 2 comprising:
 - 3 a. a laser source having a first laser and a second laser each of which generate laser
 - 4 pulses having a wavelength, the laser source being configured to combine laser
 - 5 pulses of the first laser and the second laser to form a single laser output by a
 - 6 combining apparatus for delivering a series of laser pulses each having a strength
 - 7 and a duration to ablate or coagulate the area of tissue being treated;
 - 8 b. a laser delivery system coupled to the laser source for delivering the laser pulses
 - 9 from the laser source to the area of tissue being treated; and
 - 10 c. a control system for selecting the rate and fluence of the laser pulses, the control
 - 11 system coupled to the laser source for controlling generation of the laser pulses
 - 12 from the laser source, wherein the laser source operates in both an ablation mode
 - 13 and a coagulation mode such that when in the ablation mode, the strength and
 - 14 duration of the laser pulses are sufficient to ablate tissue at the area of tissue being
 - 15 treated to a controllable ablation depth and when in the coagulation mode, the
 - 16 strength and duration of the laser pulses are sufficient to generate a coagulation
 - 17 region having a controllable coagulation depth within the tissue remaining at the
 - 18 area of tissue being treated without ablating any tissue.

- 1 18. (Original) The medical laser delivery apparatus as claimed in claim 17 further comprising
- 2 a graphical user interface through which a user selects the controllable ablation depth and
- 3 the controllable coagulation depth.

- 1 19. (Original) The medical laser delivery apparatus as claimed in claim 18 wherein the laser
- 2 delivery system comprises an articulated arm and one or more refocussing optics for
- 3 refocussing the laser beam as its travels through the articulated arm.
- 1 20. (Original) The medical laser delivery apparatus as claimed in claim 19 wherein the laser
- 2 delivery system further comprises a scanning handpiece at an end of the arm for
- 3 providing the laser pulses to the area of tissue being treated.
- 1 21. (Original) The medical laser delivery apparatus as claimed in claim 20 wherein the
- 2 refocussing optics are simple convex lenses.
- 1 22. (Original) The medical laser delivery apparatus as claimed in claim 21 wherein the laser
- 2 source includes a laser having a short penetration depth.
- 1 23. (Previously Presented) The medical laser delivery apparatus as claimed in claim 22,
- 2 wherein the first and second lasers are erbium lasers.
- 1 24. (Previously Presented) The medical laser delivery apparatus as claimed in claim 23
- 2 wherein the erbium lasers are Er:YAG lasers.

1 Claims 25-40 (Canceled)

- 1 41. (Currently Amended) A dual mode medical laser system, for sequentially ablating and
- 2 coagulating a region of target tissue with ablation laser pulses followed by coagulation
- 3 laser pulses, the dual mode medical laser system comprising:
 - 4 a. a laser source comprising a first laser and a second laser for generating a first set
 - 5 of laser pulses and a second set of laser pulses at a wavelength;
 - 6 b. means to combine pulses of the first set of laser pulses and the second set of laser
 - 7 pulses to provide a single laser output, the single laser output being capable of
 - 8 coagulating tissue with the system in a coagulation mode and ablating tissue with
 - 9 the system in an ablating mode; and
 - 10 c. means to direct the single laser output to the region of the target tissue.

- 1 42. (Original) The dual mode medical laser system of claims 41 wherein the first laser and
- 2 the second laser are Er:YAG lasers.
- 1 43. (Previously Presented) The dual mode medical laser system of claim 41 wherein the
2 means to combine pulses of the first set of laser pulses and the second set of laser pulses
3 is a galvanometer.
- 1 44. (Original) The dual mode medical laser system of claim 41 further comprising a user
2 interface, wherein a user selects an ablation depth and a coagulation depth and wherein a
3 series of the ablation laser pluses with a fluence corresponding to the selected ablation
4 depth are generated followed by a series of the coagulation laser pulses with a fluence
5 corresponding to the selected coagulation depth.
- 1 45. (Original) The dual mode medical laser system of claim 44 wherein the user interface
2 comprises a mode selector for selecting between manual mode and scan mode, wherein
3 the user further selects a scan size and a laser pulse pattern with the scan mode selected.
- 1 46. (Original) The dual mode medical laser system of claim 45 wherein the user interface is a
2 graphical user interface for displaying the selected laser pulse pattern.
- 1 47. (Original) The dual mode medical laser system of claim 41 wherein the ablation laser
2 pulses have a duration of approximately 500 microseconds and a fluence of
3 approximately 2 Joules/cm².
- 1 48. (Previously Presented) The dual mode medical laser system of claim 41 wherein when the
2 system is in the coagulation mode, the coagulation laser pulses of the first set of laser
3 pulses and the second set of laser pulses each have a duration of approximately 150
4 microseconds and a combined fluence of approximately 200 milliJoules/cm².
- 1 49. (Original) The dual mode medical laser system of claim 41 wherein the means to direct
2 the single laser output to the region of the target tissue comprises an articulated arm

feature with a plurality of refocussing lenses for guiding and focussing the single laser output through the articulated arm feature.

1 50. (New) A medical laser delivery apparatus for delivering a series of laser pulses having a
2 wavelength, the medical laser delivery apparatus including non-ablative laser pulses for
3 directing to an area of tissue to be treated and generating a region of coagulation to a
4 controllable coagulation depth under a surface of the area of tissue, the apparatus
5 comprising a laser source for generating the series of laser pulses including the non-
6 ablative laser pulses to be delivered to the area of tissue to be treated in order to raise a
7 temperature at the surface of the area of tissue to be treated to a temperature sufficient to
8 generate coagulation at the coagulation depth when the laser source is in a coagulation
9 mode, wherein the laser source comprises two or more lasers, the medical laser delivery
10 apparatus further comprising a galvanometer that combines the series of laser pulses from
11 the two or more lasers into a single laser output by switching between laser outputs from
12 the two or more lasers.

1 51. (New) A medical laser comprising:

2 a. a laser source having two or more pulsed lasers for generating laser outputs
3 having a wavelength, wherein a series of the pulses of laser light are combined
4 into a single laser output by switching between the laser outputs with a
5 galvanometer, the single laser output having a predetermined absorption, wherein
6 the predetermined absorption forms a predetermined coagulation depth; and
7 b. a laser control system coupled to the laser source for controlling the laser source
8 to deliver the laser output to a target area.